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In vitro investigation of bioactivities of Launaea taraxacifolia and Crassocephalum rubens

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Launaea taraxacifolia and *Crassocephalum rubens* are among many wild, underutilized and under cultivated vegetables in Nigeria that are at risk of extinction. Phytochemical screening was carried out on their extracts using qualitative tests according to standard methods. Total phenolic contents (TPC), total flavonoid contents (TFC) and antioxidant activities were evaluated; using *in vitro* assays and phenolic profiles characterized by using high-performance liquid chromatography techniques. The antimicrobial activities of the extracts against selected bacteria and food-associated filamentous fungi at 0.05 g/ml were evaluated using agar well diffusion and poisoned food techniques respectively. The result revealed the presence of flavonoid, tannin, terpenoid and saponin in the extracts. Antioxidant activities exhibited varied from mild to strong in comparison with positive controls; but strongly correlated with TFC (r=-0.384-0.997 and r=-0.629-0.993) and TPC (r=-0.585-0.999 and r=-0.936-0.998) for *Launaea taraxacifolia* and *Crassocephalum rubens* respectively. HPLC analysis revealed the presence of caffeic acid, chlorogenic acid, ellagic acid, quercetin and kaempferol as major phenolic components in the extracts. The antibacterial activities of some of the extracts of the vegetables leaves were generally insignificant when compared with streptomycin sulphate used as control but their antifungal activities were quite remarkable compared with bonlate antibiotic. The vegetables have good antioxidant and antifungal potential for promoting good health. In the face of increasing food insecurity and health challenges, more attention should be paid to their cultivation and utilization.

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